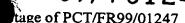
Application No. New U.S. Nation tage of PCT/FR99/01247



## JC01 Rec'd PCT/PTO 2 7 NOV 2000

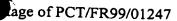
## CLAIMS

- Method for amplifying at least one specific 13.. nucleotide sequence of a synth tic or natural nucleic acid contained in a reaction mixture, the reaction mixture consisting of at least one nucleic 5 comprising at least two related nucleotide sequences and/or of at least two nucleic acids, each comprising at least one related nucleotide sequence; the method using at least one type of amplification primer capable of hybridizing with the nucleic acid so as to allow the 10 the related nucleotide sequences amplification of consists in adding, to the reaction mixture, at least one sequence, acting as a blocking sequence, which is capable:
- of hybridizing to at least one nucleotide sequence, 15 which is not the specific nucleotide sequence(s) to be amplified, and
  - at the level of this nucleotide of preventing, sequence, the elongation of the amplification primer.
- 14 Method according to claim 13, characterized in 20 that the blocking sequence(s) is (are) capable of hybridizing to the, or to all the, nucleotide sequences which are not the specific nucleotide sequence(s) to be amplified.
- Method according to claim 13 , characterized 25 15. in that each blocking sequence is an oligonucleotide based on modified nucleotides and/or ribonucleotides deoxyribonucleotides, such as PNAs or and/or thiophosphate nucleotides.
- Method according to claim 13 , characterized 30 16. in that each blocking sequence comprises at least one element which prevents the amplification.
  - Method according to claim!16, characterized in 17. that the element which prevents the amplification is
- located at the 3' end of the blocking sequence and does 35 not allow its elongation.
  - Method according to claim 17, characterized in that the element which prevents the amplification is

:. \_



## Application No. New U.S. Nation age of PCT/FR99/01247



located at the 5' end of the blocking s quence and acts as a prot ctive element.

- 19 Method according to claim: 16 characterized in that\_each element which prevents the amplification consists of a nucleotide or modified nucleotide, or of an oligonucleotide which may or may not comprise at least one modified nucleotide, nucleotide, modified nucleotide or oligonucleotide not hybridizing to the nucleic acid.
- 10 Method according to claim. 16 characterized in that each element which prevents the amplification consists of a molecule other nucleotide or than a modified nucleotide.
- 21 Method according to claim 16 characterized in that the element consists of at least 15 five, in particular at least ten, and preferably at least fifteen, nucleotides or modified nucleotides or a mixture of nucleotide(s) and modified nucleotide(s).
  - Method according to 22 . claim: characterized in that the element is sufficiently allow the formation of a loop and

hybridization between the nucleotides and/or modified nucleotides which constitute this loop.

- Method according to 23 . claim 16.
- 25 characterized in that the element which does not allow the elongation is substituted for the hydrogen atom of the hydroxyl group or for the hydroxyl group, placed at the 3' position of the ribose, itself located at the 3' end of the nucleic acid.
- 30 Method according to 16, claim characterized in that the element is:
  - substituted for the phosphate placed at in the 5' position of the ribose, itself located at the 5' end of the nucleic acid, or
- grafted onto the phosphate placed at the 5' position 35 of the ribose, itself located at the 5' end of the nucleic acid.

5